1986 Quinquennial Review

BACKGROUND PAPER No.6

Trends in Employment

City of Toronto Planning and Development Department
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1 Background Summary

1.1 The 1986 Quinquennial Review: Background Papers

The 1976 amendments to the Part I Plan for the Central Area put in place provisions which require, among other things, a review at five-year intervals of certain aspects of the Plan and in particular, of indicators relating to the Plan's office deconcentration policies. A tenth year review of these indicators is due in 1986. As part of the monitoring and research leading to the review, a series of background papers are being published dealing with a range of factors related to the rate and distribution of office, employment and population growth. Additional papers will also examine the impact of these factors on the growth of employment and related impacts on the transportation system.

The subject report, **Trends in Employment**, comprises Background Paper No. 6. The report reviews the structural shift in employment from an industrial base to an office base throughout the 1970s and examines in detail recent trends from 1981 to 1986 utilizing data from the annual employment surveys conducted by the Metropolitan Toronto Planning Department. This source classifies employment by land use rather than by industry or occupation.

The analysis looks at Metro, the City and the Central Area, first discussing the structural reorientation of the regional economy from 1970 to 1981. This is followed by a discussion of the uncertain eighties focussing on the impacts of the recession from 1981 to 1983 and the recovery that has been experienced locally from 1983 to 1985. The results of the most recent employment survey, 1986, are discussed for the City of Toronto and Central Area only. A more detailed examination of downtown office employment follows. Finally, a description of recent projections of future employment for the Central Area is presented, pointing out both the need to undertake such forecasting exercises as well as the need to view the resulting forecasts with caution.

1.2 Summary

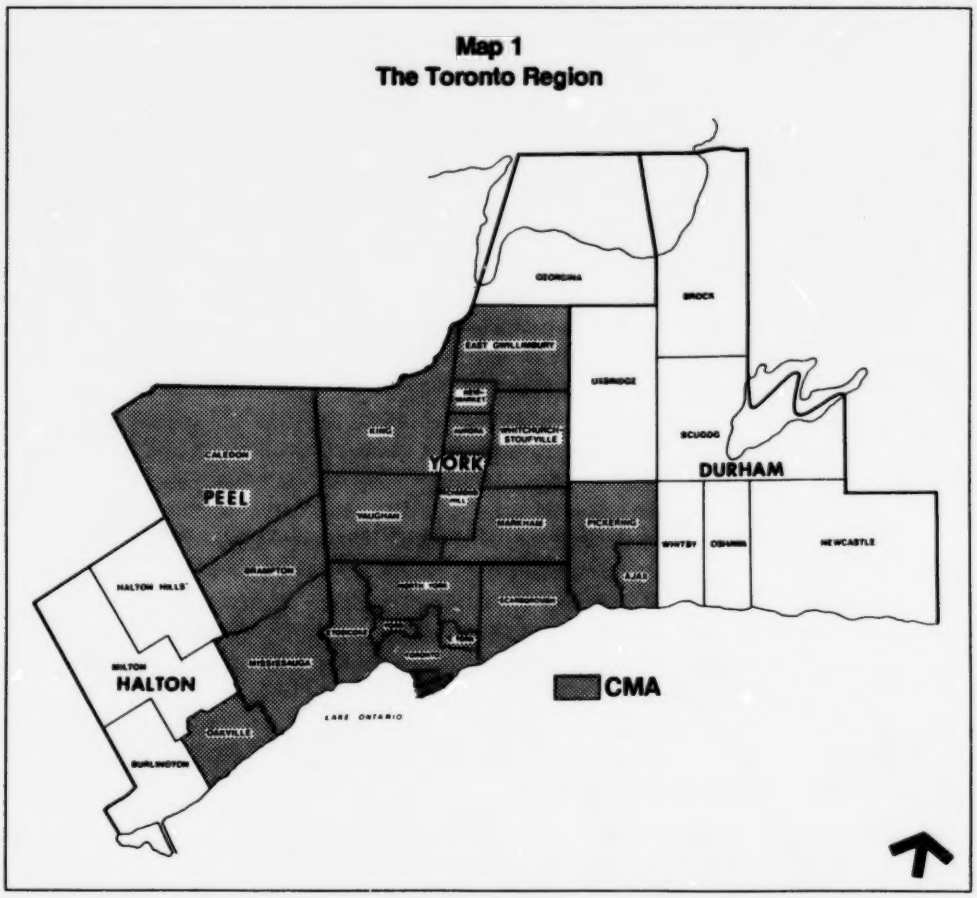
- The health of the local economy can be measured by the number and diversity of jobs it provides. Since the early 1970s the office sector has grown in its dominance of employment in the City of Toronto, and has overtaken industrial employment throughout Metro.
- Including part-time workers, there were over 545,000 people employed in the City of Toronto in 1986; over 389,000 of these jobs were located in the Central Area with 60% in the office sector.
- Full-time employment in the City has finally surpassed pre-recessionary levels surpassing 473,000 in 1986.
- A large share of the City's recent growth in total employment has been provided in the form of part-time work. As a proportion of total employment, part-time positions have grown from 7 per-cent in 1976 to 13 percent in 1986. During each of the past two years there have been more part-time jobs created in the City than full-time jobs.
- Most of the City's job gains have been in the Central Area. Following a drop of almost 12,000 full-time jobs during the recession of 1981-83, 18,600 full-time jobs have been created downtown between 1983 and 1986.
- The office deconcentration objectives of the Central Area Plan are being met. In 1985 the Central Area accounted for 45 percent of all office jobs in Metro, down 3 percent since 1981 and down 14 percent since 1970. Almost two-thirds of Metro's growth in office employment in the post-recession period occurred outside of the Central Area.

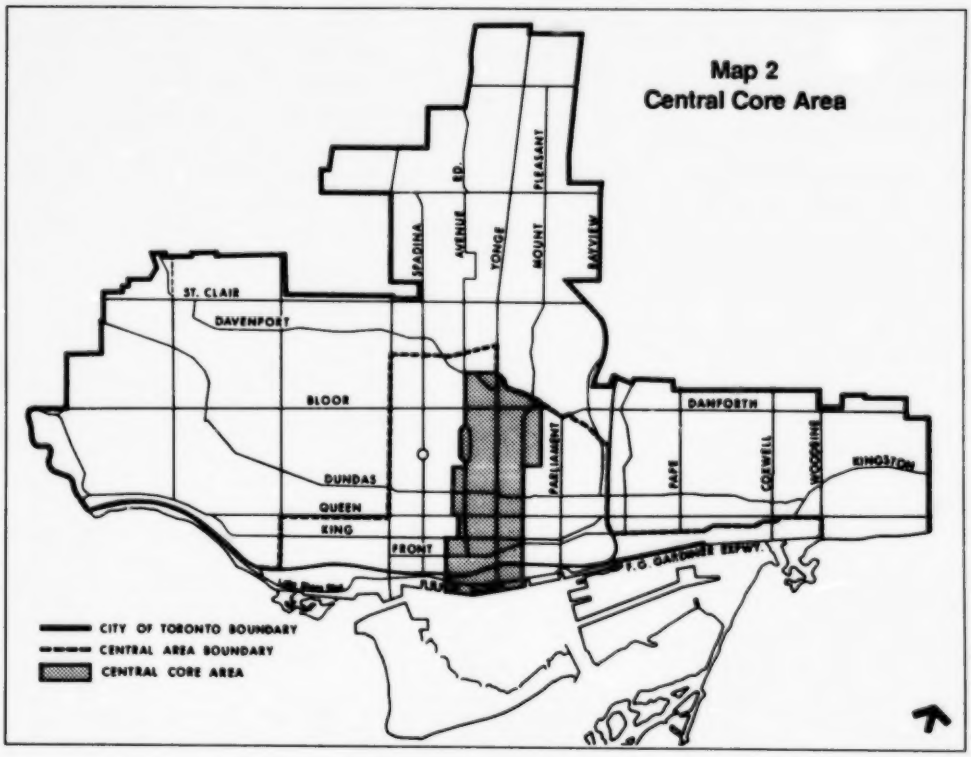
- In the Central Core, there has been a loss of office employment in firms related to the manufacturing and resources sectors and considerable growth in the financial and business services sectors (the latter has almost doubled in size since the early 1970s).

- Banking and insurance establishments experienced considerable employment growth at times over the past 10 years. These key sectors now anticipate more modest growth over the next 5 years. Their dominance in the office employment sector means their slowdown may reduce the demand for office space over the next few years.

- Current projections forecast growth in downtown employment which generally means growth in office employment as defined by Metro's land use activities. The most recent scenario generated by Metro Toronto Planning staff (M1-86) suggests a 13 percent increase in office employment between 1985 and 1991.

Map 1
The Toronto Region




Map 2
Central Core Area
SPADINA
AVENUE
ST.
TONGE
MOUNT
PLEASANT
BAYVIEW
ST. CLAIR
DAVENPORT
BLOOR
DANFORTH
PARLIAMENT
PAPE
COXWELL
GREENWOOD
KINGSTON
DUNDAS
QUEEN
KING
FRONT
CITY OF TORONTO BOUNDARY
CENTRAL AREA BOUNDARY
CENTRAL CORE AREA

2 Employment Trends

Trends in employment are a fundamental component of the monitoring process. Growth in employment generates a demand for space to accomodate workers as well as demand for transportation facilities to move these people from their homes to their places of work. Background Paper No. 2 drew attention to a re-orientation of the regional economy from a focus on the production of goods to an information-based service economy. The trends identified by the Census to 1981 appear to have continued, and will likely be confirmed when data from the 1986 Census become available some time in early 1988.

2.1 The Metro Employment Survey

Since 1981 the Metropolitan Toronto Planning Department's Employment Survey has produced annual estimates of employment across Metro. The survey method employed involves a very large sample survey of business establishments throughout Metropolitan Toronto. The Metro survey does not classify employment by labour force or occupational characteristics. Instead, employment is classified by land use sector. Whereas other indicators, such as occupational data collected as part of the Census and Labour Force surveys, measure employment by place of residence, the Metro survey has the benefit of measuring employment by place of work. These data assist in the evaluation of the need for new transportation facilities, and in measuring changes in the local economic base. The data are timely and can be disaggregated geographically as well as by land use sector. Hence these data are very useful in transportation modelling exercises.

As a land use based survey, the Metro employment data are not directly comparable to industrial or occupational classifications used by Statistics Canada. As a companion analysis to Background Paper Nos. 2 and 7 however, this paper will highlight how changes to the regional economy have influenced changing land use patterns. Generally, the Metro survey data can be broken down into six land use groups: office, retail, service, (restaurants, hotels and retail services) industry (manufacturing and warehousing), institutions (schools, hospitals, police and fire departments) and others. One of the drawbacks of this form of classification is the very narrow definition of industrial activity. In focussing on land uses which are primarily manufacturing and warehousing, the trends identified in Background Paper No. 7 namely the modest growth of what are considered "blue collar" jobs (for example maintenance staff in office buildings) are apparently understated in Metro's figures. In itself this is an interesting finding from the standpoint of integrating land use planning with economic development initiatives. Perhaps the traditional view of linking the fate of blue collar jobs in the Central Area solely to the fortunes of the manufacturing sector, as defined by land use, should be reviewed.

In 1985 the total employment for Metropolitan Toronto was estimated at 1.18 million. Office employees made up 42 percent of this total, followed by industrial workers at 22 percent, institutional at 12 percent, retail at 11 percent, service at 11 percent and other types of employment at 2 percent. Toronto's Central Area (Map 2) accounted for 31 percent of the Metro total. Fully 60 percent of Central Area employment is concentrated in the office sector.

Since 1970 employment in the Toronto Census Metropolitan Area (CMA, see Map 1) has undergone very substantial change. Most notable has been:

- the rapid growth and suburbanization of employment opportunities;

- sweeping structural change in the composition of the labour force from a manufacturing orientation to an information oriented service economy characterized by rapid growth in office-type jobs;
- the recession of 1981-83 which reduced employment levels of all types and which was followed by a rapid growth in part-time work in the recovery period of 1983-85; and
- a substantial increase in the proportion of women active in the labour force.

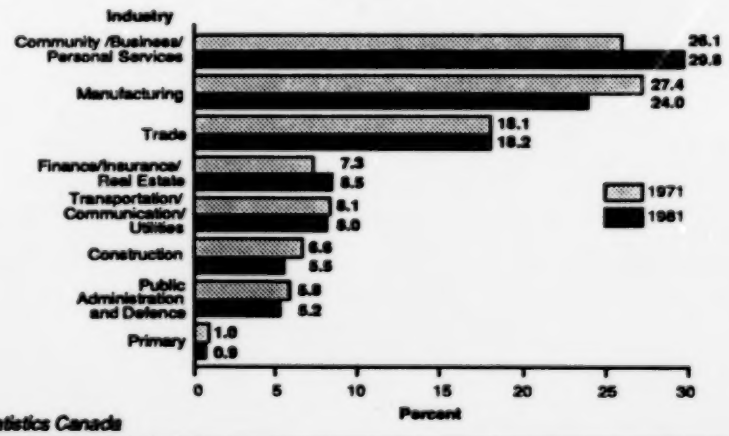
The following analysis examines changes in employment between 1970 and 1985 broken out into three distinct time periods:

- 1970 - 1981 - a decade of sustained overall employment growth with a shift from industrial to office work;
- 1981 - 1983 - a slowdown in growth, and absolute decline in most sectors caused by the economic recession; and
- 1983 - 1985 - a period of recovery from the recession.

2.2 The Seventies - Structural Change in the Regional Economy

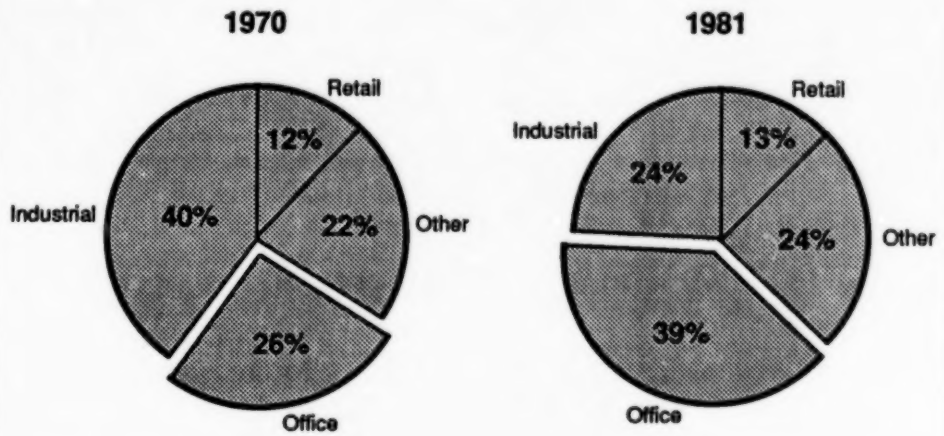
The labour force in the Toronto Census Metropolitan Area (CMA) grew by 45 percent between 1971 and 1981, due to overall population growth and increases in the labour force participation rate. The latter resulted from increases in the working age population and the number of women active in the labour force. During this time, industries which had traditionally served as the strongest sectors in the region (Primary, Manufacturing and Construction) all saw a decline in their relative shares of employment. Trade, Finance, Insurance and Real Estate (FIRE) and Community Business and Personal Services each captured a larger share of the labour force in 1981 than in 1971. Community Business and Personal Services is now the single largest employment sector in the CMA. (See Figure 1).

Figure 1
Percent Share of Total Labour Force by Industry Group
Toronto CMA
1971 & 1981



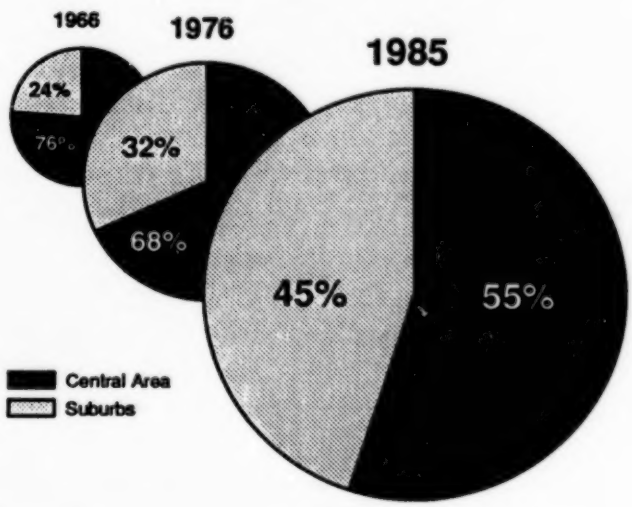
Source: Statistics Canada

Figure 2
Metropolitan Toronto
Employment Distribution
1970-1981



Source: Metropolitan Toronto Planning Department

Figure 3
Share of Office Space
1966-1985



Source: Royal LePage Ltd.

Table 1
Employment Trends
1970-1981
(estimates of total employment)

	Office	Retail	Industry	Service & Other	Total
Central Area					
1970	140,688	35,541	65,673	76,528	318,430
1981	222,000	34,000	40,000	85,770	381,770
Absolute change	81,312	(1,541)	(25,673)	9,242	63,340
percent change	57.80	(4.34)	(39.09)	12.08	19.89
City of Toronto					
1970	178,654	57,775	120,764	111,652	468,845
1981	266,957	58,302	68,712	125,916	519,887
Absolute change	88,303	527	(52,052)	14,264	51,042
percent change	49.43	0.91	(43.10)	12.78	10.89
Metro Toronto					
1970	238,294	114,691	367,114	201,385	921,484
1981	462,578	143,122	288,613	283,873	1,178,186
Absolute change	224,284	28,431	(78,501)	82,488	256,702
percent change	94.12	24.79	(21.38)	40.96	27.86

Source: *Metropolitan Toronto Planning Department, Employment Projections. A Working Paper, December 1984*

Notes:
1. *Employment surveys conducted by the Metropolitan Toronto Planning Department classify employment according to Land Use and are not directly comparable to the Standard Industrial Classification system employed by Statistics Canada and used in research efforts elsewhere.*
2. *The 1981 employment survey only counted full-time workers but has been factored up in this table to be comparable with the 1970 survey data.*

• **Metro**

As Table 1 illustrates, total employment within Metropolitan Toronto grew by 28 percent over the 1970 to 1981 period. Characteristic of the trends described above, is a 21 percent decline in industrial employment, while employment in offices grew by 94 percent. Whereas in 1970 office jobs measured only two-thirds the number of industrial jobs in Metro, by 1981 these positions were reversed with industrial employment opportunities totalling only 62 percent the number of jobs in offices (Figure 2).

• **City**

As the focal point for business in the CMA, the City of Toronto, and the Central Area in particular, reflect this trend to a service-based economy. From 1970 to 1981 it appears that over 52,000 industrial jobs were displaced in the City and almost one-half of these were in the Central Area. Between 1970 and 1981 over 88,000 office jobs were created in the City and almost all of these were in the Central Area (92 percent; see Table 1).

• **Central Area**

The Central Area's dominance of the regional office sector began to decline after 1970. In 1970, 59 percent of all office jobs in Metro Toronto were located in the Central Area; by 1981 this share had dropped to 48 percent. The substantial growth in office employment outside of the Central Area, almost 143,000 jobs, illustrates the extent to which employment opportunities have suburbanized. Office deconcentration is one of the primary objectives of the City and Metro Official Plans, introduced in 1976 and 1981 respectively. Figure 3, from Background Paper No. 1, illustrates the degree to which the suburbs have increased their share of the regional stock of office space. The Central Area's share of total rentable space in the region has dropped from 76 percent in 1966 to 55 percent in 1985.

Census Journey-to-Work data records where people live and where they work. In this way, the data provide a description of home-work linkages, rather loosely interpreted here as "work trips", although little is known about the details of actual trips. Special tabulations of these data from the 1971 and 1981 Census show that, of all work trips originating throughout the Census Metropolitan Area and destined to the Central Area, there was a 102 percent growth in Managerial and Professional trips and a 25 percent growth in Clerical trips. Non-office work trips grew by 20 percent (see Background Paper No. 7 for a more complete discussion of these data). This particular pattern of economic activity may be leading to an increasing polarization in new jobs at opposite ends of the salary scale. The greatest growth by occupational categories in the Central Area during the '70s was in clerical jobs at one end of the pay scale and managerial jobs at the other. Both managerial and clerical groups are key to the information economy and are found in office buildings

2.3 Recessionary Impacts 1981-1983

Annual estimates of employment compiled by the Metropolitan Toronto Planning Department are useful for monitoring short-term trends at the local level, particularly through periods such as the 1981-83 recession which saw significant declines in employment with varying impacts on different land use sectors. Table 2 indicates the extent of full-time employment change by sector over the 1981 to 1983 period in the Central Area, City of Toronto and Metropolitan Toronto. It should be noted that only full-time employment counts were collected during this period.

Table 2
Full-Time Employment Trends
1981-1983

	Office	Retail	Service	Industry	Institution	Other	Total
Central Area							
1981	205,494	23,471	30,871	34,509	35,140	4,813	334,298
1983	203,401	21,415	26,114	31,034	35,399	4,998	322,361
Change	(2,093)	(2,056)	(4,757)	(3,475)	259	185	(11,937)
% Change	(1)	(9)	(15)	(10)	1	4	(3)
City							
1981	251,626	44,863	47,018	69,502	51,702	6,852	471,563
1983	253,590	39,793	41,566	52,521	51,697	7,273	446,440
Change	1,964	(5,070)	(5,452)	(16,981)	(5)	421	(25,123)
% Change	1	(11)	(12)	(24)	0	6	(5)
Metro							
1981	434,204	105,160	105,302	286,163	112,414	15,972	1,059,215
1983	434,698	98,184	95,724	238,762	111,571	12,841	991,780
Change	494	(6,976)	(9,578)	(47,401)	(843)	(3,131)	(67,435)
% Change	0	(7)	(9)	(16)	(1)	(20)	(6)

Source: Metropolitan Toronto Planning Department

• **Metro**

From 1981 to 1983, 67,435 full-time jobs were lost across Metro - a decline of 6 percent. The manufacturing and warehousing sector saw this trend exaggerated by recessionary conditions, losing 47,401 full-time jobs or 70 percent of the total job loss Metro-wide. The largest employment sector, offices, remained fairly stable throughout this period.

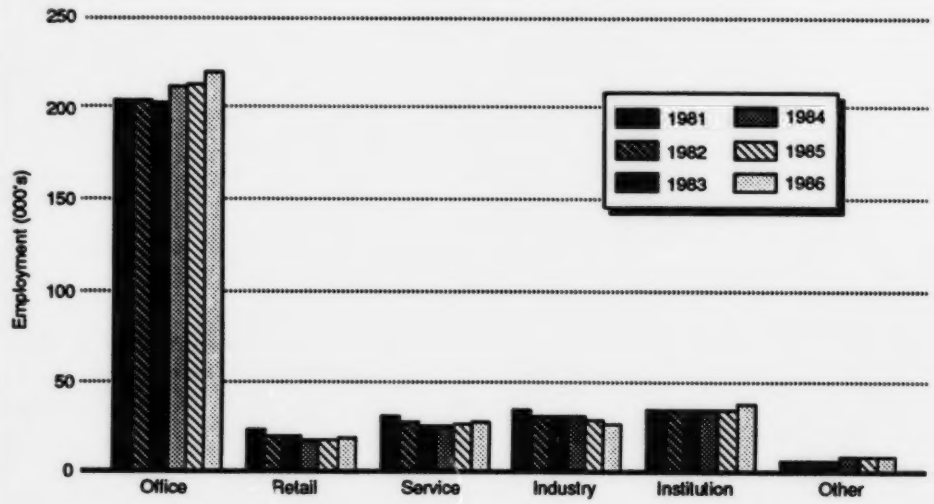
• **City and Central Area**

City-wide, total full-time employment fell by 5 percent. Industry showed the sharpest decline, dropping by 24 percent, followed by service (down 12 percent) and retail (down 11 percent). In the Central Area, employment fell in all sectors except institutional and other. Overall employment levels dropped by 3 percent. The largest decreases occurred in service (down 15 percent), industry (down 10 percent) and retail (down 9 percrent). Full-time office employment experienced a modest loss of only 1 percent.

2.4 Post Recession Recovery 1983-1985

Since 1983 the Metro employment survey has included estimates of part-time employment. Table 3 illustrates the change in *total* employment from 1983 to 1985. By 1985 full-time employment in the Central Area had almost climbed back to pre-recessionary levels (less than 2000 jobs below the 1981 level). However, full-time employment in the City and across Metro was still considerably below 1981 levels. Figures 4 and 5 illustrate full-time employment trends by land use sector for the Central Area and the City of Toronto respectively.

Figure 4
Full-Time Employment Trends
Central Area
1981-1986



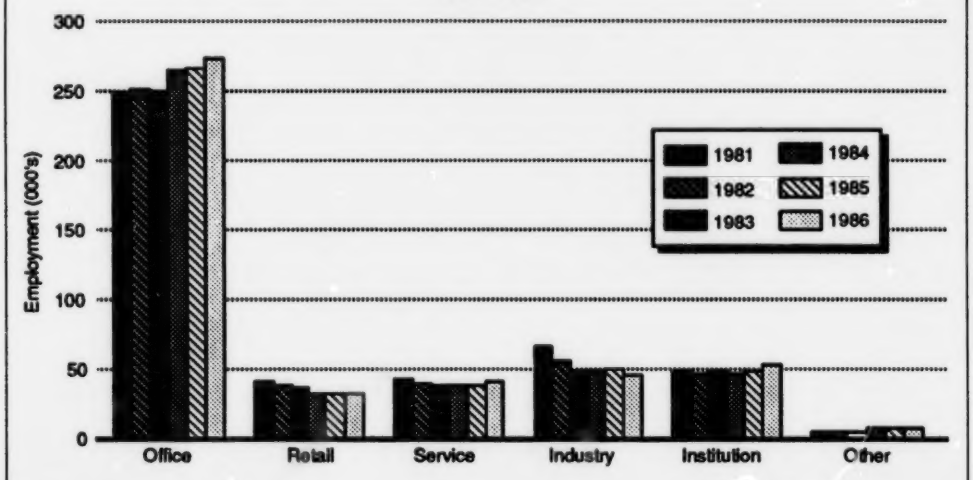
Source: Metropolitan Toronto Planning Department

Table 3
Employment Trends, Full-Time and Part-time
1983-1985

		Office	Retail	Service	Industry	Institution	Other	Total
Central Area								
1983	full-time	203,401	21,415	26,114	31,034	35,399	4,998	322,361
	part-time	6,130	6,844	5,838	1,947	4,908	3,077	28,744
	total	209,531	28,259	31,952	32,981	40,307	8,075	351,105
1985	full-time	214,233	19,183	26,970	30,076	35,673	6,344	332,479
	part-time	9,805	8,214	7,984	2,182	6,314	4,868	39,367
	total	224,038	27,397	34,954	32,258	41,987	11,212	371,846
Change in total		14,507	(862)	3,002	(723)	1,680	3,137	20,741
% Change		7	(3)	9	(2)	4	39	6
City								
1983	full-time	253,590	39,793	41,566	52,521	51,697	7,273	446,440
	part-time	10,898	12,534	8,889	2,482	6,782	3,876	45,461
	total	264,488	52,327	50,455	55,003	58,479	11,149	491,901
1985	full-time	270,037	35,803	42,682	53,852	52,565	8,206	463,145
	part-time	14,026	14,870	12,247	2,767	9,226	5,993	59,069
	total	284,063	50,673	54,929	56,619	61,791	14,139	522,214
Change in total		19,575	(1,654)	4,474	1,616	3,312	2,990	30,313
% Change		7	(3)	9	3	6	27	6
Metro								
1983	full-time	434,698	98,184	95,724	238,762	111,571	12,841	991,780
	part-time	23,057	35,397	21,884	5,503	19,023	6,410	111,274
	total	457,755	133,581	117,608	244,265	130,594	19,251	1,103,054
1985	full-time	469,598	89,431	97,712	250,752	112,966	16,452	1,036,911
	part-time	29,163	43,552	31,073	7,613	26,208	9,999	147,608
	total	498,761	132,983	128,785	258,365	139,174	26,451	1,184,519
Change in total		41,006	(598)	11,177	14,100	8,580	7,200	81,465
% Change		9	0	9	6	6	37	7

Source: Metropolitan Toronto Planning Department

Figure 5
Full-Time Employment Trends
City of Toronto
1981-1986



Source: Metropolitan Toronto Planning Department

• **Metro**
Over 81,000 total jobs were added across Metro between 1983 and 1985, and 45 percent (over 36,000) of these were part-time positions. Sixty-seven percent of the full-time jobs lost during the recession across Metro had been recovered by 1985. The largest growth sector in Metro was offices (up 9 percent) which accounted for over one-half of all additional jobs. Service employment also grew by 9 percent, while industrial and institutional jobs increased by 6 percent. Retail employment showed marginal decline over this period.

• **City**
In the City of Toronto, the 6 percent growth in total employment was even more dependent on the office sector, which grew by 7 percent. In Toronto over 64 percent of the additional total jobs were in offices. Employment in the service sector grew by 9 percent, followed by institutional (up 6 percent) and industrial (up 3 percent). The retail sector in the City declined by 3 percent during this time.

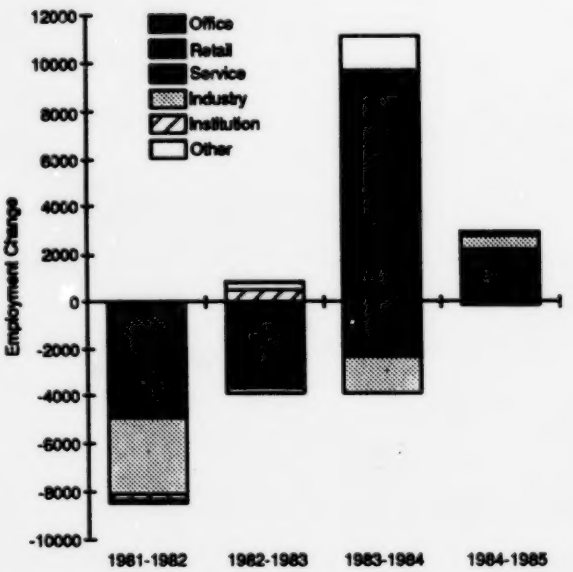
• **Central Area**
In the Central Area, 70 percent of additional total employment was found in the office sector which grew by 7 percent. As was the case City-wide, total service employment grew by 9 percent and retail jobs declined by 3 percent. Figure 6 illustrates the annual change in full-time employment by six land use activity groups for the Central Area from 1981 to 1985.

Table 3 shows the rather large relative increases in total employment in the 'other' employment sector (39 percent in the Central Area, 27 percent in the City and 37 percent across Metro), this to some degree reflects the growing diversity of employment opportunities. This group includes

construction, entertainment and work in recreation establishments.

The decentralization of office employment continues as the Central Area, in 1985, accounted for 45 percent of all office jobs in Metro, a decline of 3 percent since 1981 and 14 percent below the share held in 1970. Almost two-thirds of Metro's growth in office employment since 1983 occurred outside of the Central Area.

Figure 6
Annual Full-Time Employment Change
Central Area
1981-1985



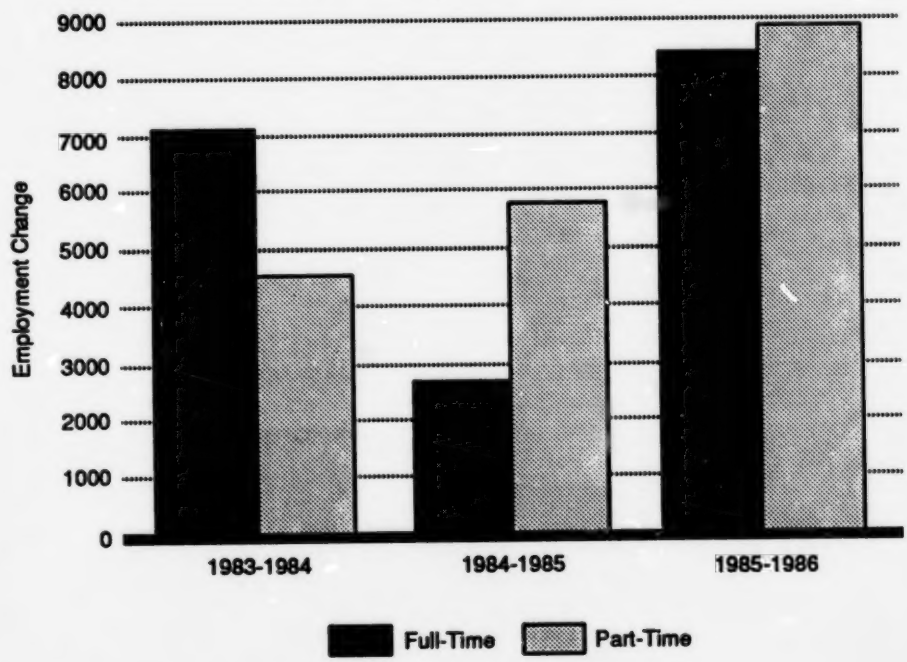
Source: Metropolitan Toronto Planning Department

2.5 Part-Time Employment

The monitoring of part-time employment has been very useful in understanding the overall recovery in total employment levels. Part-time work is defined as less than 20 hours of work per week. The Labour Force Survey, conducted quarterly by Statistics Canada, shows that in the City of Toronto part-time employment has grown from 7 percent of all jobs in 1976 to 12 percent in 1985. The Metro survey results support this finding for the shorter time series available, revealing a growth in the part-time share from 10 percent of all jobs in Toronto in 1983 to 13 percent in 1985. Part-time work has become increasingly important in all sectors and a better understanding of the travel patterns of part-time workers would be useful in modelling transportation demand.

Part-time jobs increased 33 percent across Metro, 30 percent in the City of Toronto and 37 percent in the Central Area between 1983 and 1985. Figure 7 breaks down the annual change in total employment by full-time and part-time work.

Figure 7
Growth in Full-Time and Part-Time Employment
Central Area
1983-1986



Source: Metropolitan Toronto Planning Department

3 1986 Preliminary Estimates for the City of Toronto

Table 4 contains estimates of 1986 employment levels for the Central Area and the City of Toronto and shows change over 1985; comparable data for Metro Toronto were not available at the time of writing. These estimates are preliminary and may be subject to adjustment. The Central Area Monitoring Program, a joint City/Metro/TTC research exercise, provided the funds to expand the survey sample from 50 to 100 percent coverage of establishments within the Central Area in 1986. This increase in coverage downtown will enable planners to more sensitively and accurately track changes in employment and its impact on transportation requirements, particularly in the office sector. Some employment counts for earlier years were corrected in the process, hence figures and tables in this report may not be entirely consistent with those of other Quinquennial Review documents, nor with those previously published by Metro or City planning staff.

Table 4
Employment Trends, Full-Time and Part-time
1985-1986

		Office	Retail	Service	Industry	Institution	Other	Total
Central Area								
1985	full-time	214,233	19,183	26,970	30,076	35,673	6,344	332,479
	part-time	9,805	8,214	7,984	2,182	6,314	4,868	39,367
	total	224,038	27,397	34,954	32,258	41,987	11,212	371,846
1986	full-time	220,119	19,398	29,390	27,438	38,550	6,129	341,024
	part-time	13,089	9,399	10,139	2,843	7,818	5,070	48,358
	total	233,208	28,797	39,529	30,281	46,368	11,199	389,382
Change in total		9,170	1,400	4,575	(1,977)	4,381	(13)	17,536
% Change		4	5	13	(6)	10	0	5
City								
1985	full-time	270,037	35,803	42,682	53,852	52,565	8,206	463,145
	part-time	14,026	14,870	12,247	2,767	9,226	5,933	59,069
	total	284,063	50,673	54,929	56,619	61,791	14,139	522,214
1986	full-time	277,232	35,736	45,160	49,950	56,384	8,731	473,193
	part-time	18,871	16,894	14,826	3,714	11,480	6,274	72,059
	total	296,103	52,630	59,986	53,664	67,864	15,005	545,252
Change in total		12,040	1,957	5,057	(2,955)	6,073	866	23,038
% Change		4	4	9	(5)	10	6	4

Source: Metropolitan Toronto Planning Department

There has been considerable growth in employment throughout the City and by 1986, full-time employment finally surpassed pre-recessionary levels. Part-time employment continues to play an important role in the local economy. During 1986 there were more part-time jobs created than there were full-time jobs. This was the second straight year that this had been the case. (See Figure 7).

Across the City, the largest percentage increases in total employment occurred in the institutional (10 percent) and service (9 percent) sectors. Recent modest increases in total industrial employment have been negated by an *apparent* 5 percent drop from 1985 to 1986. In an effort to pinpoint the nature of the differences between the 1985 and 1986 surveys, Planning and Development Department staff are conducting a detailed analysis at the establishment level. Indications to date are that the apparent decline in manufacturing and warehousing jobs is significantly overstated. A futher detailed report on industrial employment trends in the City is now in preperation. The pattern of percentage change in total employment levels was similar in the Central Area. Institutional jobs grew by 10 percent in 1986 and service employment grew by 13 percent.

The largest absolute increases in employment were in the office sector, both City-wide and in the Central Area. A significant number of "blue collar" jobs can be found in uses classified as "office" in the Metro survey, such as printing and publishing. This suggests a substitution effect, whereby losses of blue collar jobs in traditional manufacturing and warehousing establishments may be offset by increases in blue collar jobs in "non-industrial" sectors. There appears to be a replacement of blue collar employment opportunities in these non-industrial land use settings.

Some economic forecasts are looking at slower growth in 1987 and many employers coming out of the recession may be adopting a tentative attitude toward staff expansion. This may be reflected in the growth in part-time employment. The 1986 part-time counts are already almost as high as had been projected for 1991 by Metro planners.

4 Central Core Office Employment

In the Central Core (see Map 2) 71 percent of all jobs are in the office sector. Growth in office employment drives the demand for new office space and hence impacts on planning policy from the standpoint of land use controls and the demand for transportation facilities. Within the office sector, different types of establishments have varied experiences in changing employment levels. In order to more completely understand recent changes in office employment levels a detailed examination of the key components of the Core Area office sector is presented here. The discussion that follows draws on the on-going work of the Downtown Employment Steering Committee which has been established by the City's Economic Development Committee to study employment growth prospects in the Downtown office sector, with particular reference to the impacts of technological change.

Hemson Consulting Ltd. has prepared a report on the outlook for office employment and space demand in the Core for the Downtown Employment Steering Committee. The report, **Outlook for Office Employment and Space in the Central Core**, presents extensive research into employment levels and space demand for a detailed breakdown of business types. The profile of business activity in the Core has changed significantly since the early 1970's. The financial services group saw large increases in employment as well as increases in floor space per worker, emphasizing the strength of Toronto as the premier financial centre of the country. Since the early 1970's the business services sector has almost doubled in size. The Hemson report also found that the manufacturing and resources groups have been in decline and that the Government sector while still the second largest space user, has declined in relative importance.

Table 5 summarizes the findings of Hemson's classification of key office sectors:

Table 5
Office Employment Change

Sector	Percentage Change in Employment 1971 to 1986	
Manufacturing and Resources	down	4%
Transportation & Communications	up	53%
Financial Services	up	54%
Business Services	up	95%
Government	up	16%
Associations & Others	up	62%

Source: Hemson Consulting Ltd.

From 1971 to 1986, financial services employment rose by 20,500 (54 percent) however, most of the increase was experienced by bank and trust companies (13,100) which rose by 115 percent. The business services sector grew by 95 percent. Comprised of lawyers, accountants, advertising, and computer services, this sector realized considerable increases in employment in law firms, which almost doubled, and in jobs in computer services, which rose by 625 percent (accounting for 23 percent of the growth in this sector).

Meanwhile, the resources and manufacturing sector declined over this period by 4 percent. Comprised mainly of mining and oil companies, the resources component has been hard hit in the Core because of the combined impacts of poor economic conditions in this sector and the decisions of some firms to relocate staff to areas outside of the Core. The manufacturing group has experienced a long term trend toward decentralization to suburban locations.

The value of tracking such changes in employment levels is to facilitate the projection of future employment levels and to ascertain their potential impact on the transportation system.A more sensitive analysis of change within the office sector, as has been provided by the Hemson Group, enhances such forecasting efforts by providing a better understanding of the performance of the dominant employment groups downtown.

5 Projections of Employment Downtown

A recent report commissioned by the Metro Economic Development Division entitled "Five-Year Forecast of Economic Conditions in Metropolitan Toronto" (April 7, 1986) forecasts a slowdown in the pace of economic growth across all sectors of the Metropolitan economy. The report states that "1986 will be the crest of the most recent wave of strong economic growth which began in late 1982 ... indicators of economic performance lend support to the message of continued, albeit slower, growth".

The Metropolitan Toronto Planning Department has co-ordinated the development of small area projections of employment with the co-operation of the planning departments of the area municipalities and the surrounding Regional municipalities. The basis of the most recent scenario, known as M1-86, is the 1985 employment survey. Projections of employment for 1991, 2001 and 2011 are generated for each of the over one thousand Traffic Zones within the Greater Toronto Area (the commuter shed). This section discusses the projected results for the Central Area of the City of Toronto.

Projected employment levels for the three ten year periods identified above for the 135 Traffic Zones in the City of Toronto are summarized in Table 6. Table 7 presents the M1-86 projections for the Central Area. These estimates are based on the observed rate at which establishments go out of business or move away, adjusted to account for a certain "replacement" rate within each Traffic Zone of similar firms, and estimated employment growth arising out of new development activity. This method, known as a "bottom up" approach is one with which many planners feel more comfortable since it is based, at least in the short run, on known applications for redevelopment activity. The later horizon years see the employment impacts of new development based on the potential of largely undeveloped areas such as the Railway Lands and the Central Waterfront. This particular method is used as a companion to what is referred to as a "top down" method. The "top down" method is applied over the entire region, and combines traditional cohort-survival methods of projecting population with estimates of future participation rates and unemployment rates to generate employed labour force projections.

Table 6
City of Toronto Employment Projections
Employment and Establishments
M1-86

	Office	Retail	Service	Industry	Institution	Other	Total
1985							
full-time	270,037	35,803	42,682	53,852	52,565	8,206	463,145
part-time	14,026	14,870	12,247	2,767	9,226	5,933	59,069
total employment	284,063	50,673	54,929	56,619	61,791	14,139	522,214
establishments	15,143	8,865	6,230	2,307	1,341	681	34,567
1991							
full-time	293,747	37,907	50,341	50,256	56,254	11,473	499,978
part-time	27,136	17,765	20,067	1,959	10,371	15	77,313
total employment	320,883	55,672	70,408	52,215	66,625	11,488	577,291
establishments	17,669	8,781	7,769	2,724	1,602	1,001	39,546
2001							
full-time	323,950	37,265	52,051	46,417	59,916	9,379	528,978
part-time	33,781	18,864	22,122	2,036	11,970	13	88,786
total employment	357,731	56,129	74,173	48,453	71,886	9,392	617,764
establishments	20,632	9,385	8,528	2,542	1,867	898	43,852
2011							
full-time	344,917	36,916	54,122	44,408	62,550	7,809	550,722
part-time	36,677	18,664	22,903	1,976	12,647	8	92,875
total emloyment	381,594	55,580	77,025	46,384	75,197	7,817	643,597
establishments	22,058	9,571	9,056	2,533	2,072	766	46,056

Source: Metropolitan Toronto Planning Department

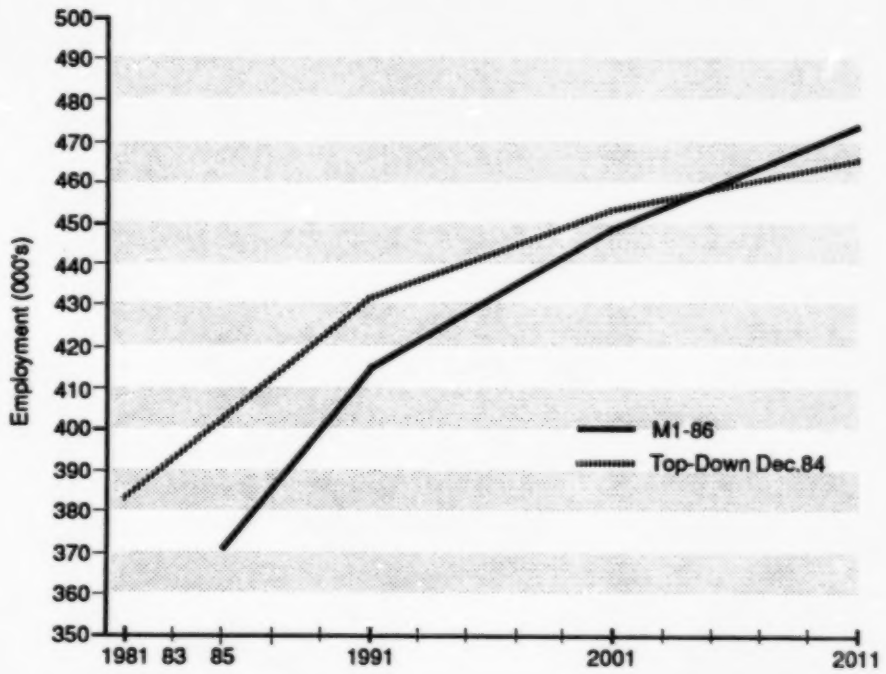
Table 7
Central Area Employment Projections
Employment and Establishments
M1-86

	Office	Retail	Service	Industry	Institution	Other	Total
1985							
full-time	214,233	19,183	26,970	30,076	35,673	6,344	332,479
part-time	9,805	8,214	7,984	2,182	6,314	4,868	39,367
total employment	224,038	27,397	34,954	32,258	41,987	11,212	371,846
establishments	9,333	4,085	2,928	1,545	495	129	18,515
1991							
full-time	234,800	21,112	32,325	28,092	37,871	8,451	362,651
part-time	19,057	10,050	13,591	1,029	7,144	10	50,881
total employment	253,857	31,162	45,916	29,121	45,015	8,461	413,532
establishments	10,965	4,176	3,275	1,944	602	695	21,657
2001							
full-time	261,296	20,751	33,699	25,851	39,754	6,683	388,034
part-time	24,739	10,684	15,045	1,072	8,095	8	59,643
total employment	286,035	31,435	48,744	26,923	47,849	6,691	447,677
establishments	12,950	4,506	3,677	1,789	698	691	24,239
2011							
full-time	281,996	20,899	35,610	24,590	41,012	6,048	410,155
part-time	27,536	10,709	15,718	1,024	8,458	6	63,451
total emloyment	309,532	31,608	51,328	25,614	49,470	6,054	473,606
establishments	14,091	4,736	4,034	1,795	773	581	26,010

Source: Metropolitan Toronto Planning Department

Figure 8 compares the forecast trend for Total employment in the Central Area resulting from the M1-86 small area model to the Metro Planning "Top Down" projection (December 1984). The "top down" model yielded a 2011 employment level of 465,000. The 1984 effort attempted to balance all employment within the Toronto commuter shed with projected levels of employed labour force throughout this area. If the area selected for analysis is sufficiently large, there should be little if any cross-boundary commuting. However, a couple of drawbacks to this method have become apparent. First, being a demographic type model for the *region*, it is very difficult to estimate how much of the projected total employment will be located in the Central Area. The Census Place of Work data show that between 1971 and 1981 there has been considerable change in the work trip patterns of the regional population, especially when broken down by occupations (see Background Paper No. 7). Secondly, since the "top down" effort was initiated before much was known about the impacts on downtown employment of the recession, the forecast growth is weighted toward the earlier part of the projection period; well over one-half of the growth projected to occur between 1981 and 2011 was forecast for the first ten year period. Experience has since suggested that this expectation of high growth early in the forecast period may not prove true.

Figure 8
Employment Projections
Central Area
1981-2011



Source: Metropolitan Toronto Planning Department

As tends to be the case when estimating employment from data on the development potential of certain areas, the total employment level for 2011 is higher from the small area model than that forecast in the "top down" exercise. However, the rate of growth is estimated to be slower in the short run in the small area model. The M1-86 scenario forecasts a growth of 110,493 jobs between 1985 and 2011, with 38 percent of this growth being achieved by 1991 (representing an 11 percent increase in total Central Area employment within six years). Within the Central Area the M1-86 scenario projects a continuing decline in industrial employment (20 percent over the 1985 to 2011 period) with growth being concentrated in the office (38 percent) and service sectors (47 percent). Office employment is projected to grow by 13 percent between 1985 and 1991, a higher growth rate than total employment (11 percent) owing to projected declines in industrial and other jobs.

To better understand the dynamics of employment change within the office sector, Hemson Consulting Ltd. undertook three surveys of organizations in key sectors:

- Personal interviews with 27 large organizations
- Telephone Survey of 200 organizations of all sizes, and a
- Telephone survey of 20 organizations that had recently moved from the Core.

The details of these survey results can be found in the consultant's final report **Outlook for Office Employment and Space in the Central Core.** Most respondents surveyed anticipate moderate growth over the next five years, although some groups see the potential for stronger growth. These higher growth groups include investment and securities firms, law firms, computer services and technical services. Overall, these interviews indicated that the rate of employment growth over the next five years will be somewhat less than that experienced over the past five years. Metro's projection to 1991 over 1985 represents a 2.2 percent per annum average growth rate in Central Area office employment. The Hemson projection of 1.8 percent growth per annum in office employment in the Central Core (where almost all of the Central Area office market is concentrated) is based on the 1986 survey results. The 4 percent growth in office employment this past year* means that these two forecast efforts are now compatible (the average annual rate of growth in the M1-86 scenario for the remainder of the 5 year forecast period is now about 1.8 percent).

The Hemson report also includes a forecast of anticipated office space demand for the next five years. Working on the premise that employment growth leads to demand for office space, these consultants anticipate that the demand for space to 1991 will be lower than it was during the 1970's but greater than that experienced over the past 5 years.

* *Part of this growth may be attributable to the increase in survey coverage in the Central Area in 1986. Metro Planning staff will be reviewing the M1-86 projections in light of these changes.*

6 Conclusions

The health of a local economy can be measured by the number and types of jobs it provides. The Metropolitan Toronto Planning Department has conducted annual surveys of employment since 1981. An earlier survey was conducted in 1970 using slightly different methods.

In the City of Toronto full-time employment has finally surpassed pre-recessionary levels topping the 473,000 mark in 1986. Including part-time workers, there were over 545,000 people employed in the City in 1986 with approximately 390,000 of these in the Central Area.

Recently, a large contribution to the growth in total employment has been provided in the form of part-time work. As a proportion of total employment, part-time positions have risen from 7 percent in 1976 to 13 percent in 1986. For each of the past two years there were more part-time jobs created in the City and the Central Area than there were full-time jobs. Part-time work has become increasingly important in all sectors and a better understanding of the travel patterns of part-time workers would be useful in modelling transportation demand.

Most of the City's job gains have been in the Central Area. After losing almost 12,000 full-time jobs during the recession (1981-83), 18,600 full-time jobs have been created downtown between 1983 and 1986. Most of the employment growth in the Central Area has been in office employment. A consultant study of the office sector in the Central Core has revealed a shift in emphasis, with employment in the offices of manufacturing and resources firms declining while considerable growth has occurred in the financial and business services sectors; the latter has almost doubled in size since the early 1970's. Banking and insurance establishments have dominated the downtown employment picture. These firms experienced considerable employment growth during recent periods of strong demand for office space. These key sectors anticipate more modest growth over the next five years. Their dominant role in the office market means that the demand for new office space may be slower between 1986 and 1991 than during the faster-paced 1970's.

The office deconcentration objectives of the Central Area Plan are being fulfilled. In 1985 the Central Area accounted for 45 percent of all office jobs in Metro, down 3 percent since 1981 and 14 percent below the share held in 1970. Almost two-thirds of Metro's growth in office employment in the post-recession period was realized outside of the Central Area.

Total employment is projected by Metro planners to grow by 23 percent in Toronto by 2011 with a 27 percent growth anticipated in the Central Area. In fact 84 percent of the anticipated growth throughout the City is expected to be realized in the Central Area. These estimates have been provided by the Metropolitan Toronto Planning Department on the basis of their small area

projections model (known as the M1-86 scenario). The estimates for the 1991 horizon year are largely based on known development proposals, at least for the office sector which is a prime contributor to future growth. The Metro projection of 13 percent growth in Central Area office employment from 1985 to 1991 is, in 1986, fairly consistent with the forecast provided by Hemson Consulting Ltd.

Continued monitoring of local employment levels is warranted both to review the state of the City's economic base and to model future demand for transportation facilities. End-stated predictions for the 25 year employment forecasts for the year 2011 are difficult to evaluate. Short-term employment projections can be more realistically assessed on the basis of recent past trends and local knowledge and expectations regarding changing economic conditions. By annually monitoring employment changes in the Central Area it should prove possible to maintain relatively accurate five-year employment forecasts. However, even for such short-term forecasts, the experience of the 1981-1986 period has shown that the Central Area employment numbers can vary widely in a largely unpredictable manner during periods of rapid economic change and adjustment. The strength of part-time work, particularly downtown, warrants an examination of the work trip patterns of part-timers in an effort to increase the accuracy of transportation models. The 1986 part-time counts are already almost as high as that projected for 1991 in the M1-86 scenario. Finally, given the results of the work undertaken by Hemson Consulting Ltd. in examining trends within the office sector downtown, certain key employment groups should be monitored closely to determine changing patterns in the demand for office space.

Appendix

Employment Time Series

The 1986 employment survey results for Toronto just became available as this Background Paper was being prepared and are incorporated here. In 1986 the Metropolitan Toronto Planning Department surveyed all establishments in the Central Area. Previous estimates (1981-1985) had been based on a 50 percent sample of establishments. The 1986 change in survey coverage led to the discovery of some coding errors in the data for earlier years. In an effort to understand employment trends as fully as possible, data in the tables presented in this report have been adjusted to account for these errors. Hence, employment data for 1981 through 1986 in this report may not be entirely consistent with tables and figures shown in other Quinquennial Review documents and earlier planning reports. The tables in this Appendix represent the corrected time series of data as of February 1987.

Table A-1
Central Area Employment Trends
1981-1986
(full and part-time estimates)

	Office	Retail	Service	Industry	Institution	Other	Total
1981							
full-time	205,494	23,471	30,871	34,509	35,140	4,813	334,298
part-time	n/a	n/a	n/a	n/a	n/a	n/a	n/a
total	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1982							
full-time	205,201	21,733	27,819	31,242	34,807	4,694	325,496
part-time	n/a	n/a	n/a	n/a	n/a	n/a	n/a
total	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1983							
full-time	203,401	21,415	26,114	31,034	35,399	4,998	322,361
part-time	6,130	6,844	5,838	1,947	4,908	3,077	28,744
total	209,531	28,259	31,952	32,981	40,307	8,075	351,105
1984							
full-time	212,725	19,037	26,331	29,447	35,645	6,468	329,653
part-time	6,972	8,021	7,254	2,008	5,608	3,597	33,460
total	219,697	27,058	33,585	31,455	41,253	10,065	363,113
1985							
full-time	214,233	19,183	26,970	30,076	35,673	6,344	332,479
part-time	9,805	8,214	7,984	2,182	6,314	4,868	39,367
total	224,038	27,397	34,954	32,258	41,987	11,212	371,846
1986							
full-time	220,119	19,398	29,390	27,438	38,550	6,129	341,024
part-time	13,089	9,399	10,139	2,843	7,818	5,070	48,358
total	233,208	28,797	39,529	30,281	46,368	11,199	389,382
1981-86 % Change							
full-time	**7.12**	**(17.35)**	**(4.80)**	**(20.49)**	**9.70**	**27.34**	**2.01**
1983-86 % Change							
full-time	**8.22**	**(9.42)**	**12.54**	**(11.59)**	**8.90**	**22.63**	**5.79**
part-time	**113.52**	**37.33**	**73.67**	**46.02**	**59.29**	**64.77**	**68.24**
total	**11.30**	**1.90**	**23.71**	**(8.19)**	**15.04**	**38.69**	**10.90**

Source: *Metropolitan Toronto Planning Department*

Note: *Part-time employment counts were not included in the 1981 survey and were only included for half of all establishments in 1982.*

Table A-2
City of Toronto Employment Trends
1981-1986
(full and part-time estimates)

	Office	Retail	Service	Industry	Institution	Other	Total
1981							
full-time	251,626	44,863	47,018	69,502	51,702	6,852	471,563
part-time	n/a	n/a	n/a	n/a	n/a	n/a	n/a
total	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1982							
full-time	255,245	42,147	43,457	59,835	50,802	6,909	458,395
part-time	n/a	n/a	n/a	n/a	n/a	n/a	n/a
total	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1983							
full-time	253,590	39,793	41,566	52,521	51,697	7,273	446,440
part-time	10,898	12,534	8,889	2,482	6,782	3,876	45,461
total	264,488	52,327	50,455	55,003	58,479	11,149	491,901
1984							
full-time	267,961	36,447	42,184	52,400	51,444	8,096	458,532
part-time	12,761	14,358	10,670	2,631	7,731	4,391	52,542
total	280,722	50,805	52,854	55,031	59,175	12,487	511,074
1985							
full-time	270,037	35,803	42,682	53,852	52,565	8,206	463,145
part-time	14,026	14,870	12,247	2,767	9,226	5,933	59,069
total	284,063	50,673	54,929	56,619	61,791	14,139	522,214
1986							
full-time	277,232	35,736	45,160	49,950	56,384	8,731	473,193
part-time	18,871	16,894	14,826	3,714	11,480	6,274	72,059
total	296,103	52,630	59,986	53,664	67,864	15,005	545,252
1981-86 % Change							
full-time	**10.18**	**(20.34)**	**(3.95)**	**(28.13)**	**9.06**	**27.42**	**0.35**
1983-86 % Change							
full-time	**9.32**	**(10.20)**	**8.65**	**(4.89)**	**9.07**	**20.05**	**5.99**
part-time	**73.16**	**34.79**	**66.79**	**49.64**	**69.27**	**61.87**	**58.51**
total	**11.95**	**0.58**	**18.89**	**(2.43)**	**16.05**	**34.59**	**10.85**

Source: *Metropolitan Toronto Planning Department*

Note: *Part-time employment counts were not included in the 1981 survey and were only included for half of all establishments in 1982.*

Table A-3
Metropolitan Toronto Employment Trends
1981-1985
(full and part-time estimates)

	Office	Retail	Service	Industry	Institution	Other	Total
1981							
full-time	434,204	105,160	105,302	286,163	112,414	15,972	1,059,215
part-time	n/a	n/a	n/a	n/a	n/a	n/a	n/a
total	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1982							
full-time	439,362	99,326	96,968	269,474	109,148	12,955	1,027,233
part-time	n/a	n/a	n/a	n/a	n/a	n/a	n/a
total	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1983							
full-time	434,698	98,184	95,724	238,762	111,571	12,841	991,780
part-time	23,057	35,397	21,884	5,503	19,023	6,410	111,274
total	457,755	133,581	117,608	244,265	130,594	19,251	1,103,054
1984							
full-time	460,702	92,471	98,211	236,647	111,671	16,771	1,016,473
part-time	23,133	40,427	25,870	6,687	21,904	7,372	125,393
total	483,835	132,898	124,081	243,334	133,575	24,143	1,141,866
1985							
full-time	469,598	89,431	97,712	250,752	112,966	16,452	1,036,911
part-time	29,163	43,552	31,073	7,613	26,208	9,999	147,608
total	498,761	132,983	128,785	258,365	139,174	26,451	1,184,519
1981-85 % Change							
full-time	8.15	(14.96)	(7.21)	(12.37)	0.49	3.01	(2.11)
1983-85 % Change							
full-time	8.03	(8.91)	2.08	5.02	1.25	28.12	4.55
part-time	26.48	23.04	41.99	38.34	37.77	55.99	32.65
total	8.96	(0.45)	9.50	5.77	6.57	37.40	7.39

Source: Metropolitan Toronto Planning Department

Note: *1) Part-time employment counts were not included in the 1981 survey and were only included for half of all establishments in 1982.*
2) Results from the 1986 survey were not available for the rest of Metro at time of publication.